THE HANFORD SITE

222-S Laboratory Complex

Fact Sheet – August 2021

The 222-S Laboratory complex is located near the center of the Hanford Site's 200 West Area.

222-S Laboratory Overview

The 222-S Laboratory is the primary onsite lab for analysis of highly radioactive samples in support of all Hanford projects.

DOE contractor Hanford Laboratory Management and Integration (HLMI) has the sole responsibility to operate, manage and maintain the laboratory. Analyses are performed on a wide variety of air, liquid, soil, sludge and biological samples.

The laboratory studies the physical and chemical characteristics of waste necessary to enable waste retrievals, provides data to support tank closure requirements, and supports the Vadose Zone Program, which tests for potential threats to groundwater.

HLMI is also committed to meeting the needs of Hanford's Direct-Feed Low-Activity Waste (DFLAW) Program. During DFLAW operations, the 222-S Laboratory staff will characterize tank waste to ensure it is suitable to be treated for vitrification (immobilization in glass). In this glass form, the waste is stable and impervious to the environment, and its radioactivity will safely dissipate over hundreds to thousands of years.

The lab has 11 hot cells, which allow crews to remotely handle and analyze radioactive samples.

222-S Laboratory Quick Facts

HISTORY: **Operations began in 1951 to produce plutonium for the nation's defense**

FACILITY: **The 222-S Laboratory is a 70,000-square-foot facility, with several support buildings**

EQUIPMENT: **The lab contains over 100 pieces of analytical equipment, 156 fume hoods, 46 remote manipulators to perform work, and 11 hot cells**